

WHAT IS CLAIMED IS:

1. A cigarette comprising a tobacco rod and a filter element connected to the tobacco rod, said filter element having an end proximal to the tobacco rod and an end distal from the tobacco rod, wherein said filter element comprises:
  - 5 a first longitudinally extending section of filter material positioned at the end of the filter element proximal to the tobacco rod;
  - a second longitudinally extending section of filter material positioned at the end of the filter element distal from the tobacco rod and spaced apart from said first section of filter material, the two sections of filter material defining a compartment therebetween;
  - 10 a semi-permeable barrier dividing said compartment into a first region adjacent to said first section of filter material and a second region adjacent to said second section of filter material; and
  - 15 an adsorbent material contained within said second region of said compartment.
2. The cigarette of Claim 1, wherein said first section of filter material and said second section of filter material are each independently selected from the group consisting of cellulose acetate tow, gathered cellulose acetate web, polypropylene tow, gathered polypropylene web, gathered polyester web, gathered paper, and strands of reconstituted tobacco.
- 20 3. The cigarette of Claim 1, wherein said first section of filter material and said second section of filter material comprise plasticized cellulose acetate tow.
4. The cigarette of Claim 1, wherein the overall length of the filter element is about 15 to about 65 mm.
- 30 5. The cigarette of Claim 4, wherein the overall length of the filter element is about 25 to about 50 mm.

6. The cigarette of Claim 1, wherein the length of each of the first and second sections of filter material is about 5 to about 25 mm.
- 5 7. The cigarette of Claim 6, wherein the length of each of the first and second sections of filter material is about 5 to about 15 mm.
8. The cigarette of Claim 1, wherein the length of the adsorbent-containing region of said compartment is about 5 to about 20 mm.
- 10 9. The cigarette of Claim 8, wherein the length of the adsorbent-containing region of said compartment is about 5 to about 10 mm.
10. The cigarette of Claim 1, wherein the total length of said compartment is about 10 to about 50 mm.
- 15 11. The cigarette of Claim 10, wherein the total length of said compartment is about 10 to about 30 mm.
12. The cigarette of Claim 1, wherein the length of said semi-permeable barrier is about 1 to about 10 mm.
- 20 13. The cigarette of Claim 12, wherein the length of said semi-permeable barrier is about 1 to about 5 mm.
- 25 14. The cigarette of Claim 1, wherein said adsorbent is selected from the group consisting of activated carbon, molecular sieves, clays, activated aluminas, silica gels, and mixtures thereof.
- 30 15. The cigarette of Claim 1, wherein said adsorbent is activated carbon.

16. The cigarette of Claim 15, wherein the activated carbon has an activity of about 60 to about 150 Carbon Tetrachloride Activity.

17. The cigarette of Claim 1, wherein said adsorbent is in granular form.

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18. The cigarette of Claim 17, wherein said adsorbent has a particle size of about 8x16 mesh to about 30x70 mesh.

19. The cigarette of Claim 1, wherein said semi-permeable barrier is selected from the group consisting of paper, cellulose acetate tow, gathered cellulose acetate web, polypropylene tow, gathered polypropylene web, and gathered polyester web.

20. A cigarette comprising a tobacco rod and a filter element connected to the tobacco rod, said filter element having an end proximal to the tobacco rod and an end distal from the tobacco rod, wherein said filter element comprises:

15 a first longitudinally extending section of fibrous filter material positioned at the end of the filter element proximal to the tobacco rod;

20 a second longitudinally extending section of fibrous filter material positioned at the end of the filter element distal from the tobacco rod and spaced apart from said first section of filter material, the two sections of filter material defining a compartment therebetween; and

25 a semi-permeable membrane comprising paper or a fibrous filter material dividing said compartment into a first hollow region adjacent to said first section of filter material and a second region containing a granular adsorbent material adjacent to said second section of filter material.